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I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO: MAIL STOP APPEAL BRIEFS- PATENTS, COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450, ON THE DATE INDICATED BELOW.

BY: Rose A. Stowe DATE: November 1, 2004
Rose A. Stowe

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re:	Patent Application of Claudia Panzer, <i>et al.</i>	: Group Art Unit: 1617 : : :
Appln. No.:	09/830,918	: Examiner: Shaojia A. Jiang, Ph.D. : :
Filed:	August 13, 2001	: Confirmation No.: 5279 : :
For:	ALCOHOL-COMPATIBLE CHITOSAN SALTS AND COSMETIC PREP- ARATIONS CONTAINING THE SAME	: Attorney Docket : No.: H 3630 PCT/US :

APPELLANTS' REQUEST FOR REHEARING UNDER 37 C.F.R. §1.197(b)

In response to the Honorable Board of Patent Appeals and Interferences' Decision on Appeal, mailed August 31, 2004 ("the Board's Decision"), Appellants submit herewith a Request for Rehearing under 37 C.F.R. §1.197(b). This Reply Brief is being timely filed on or before November 1, 2004 (October 31, 2004 being a Sunday).

Appellants respectfully request rehearing by the Board of Patent Appeals and Interferences, as to the Board's Decision, based upon the following two particular points believed by Appellants to have been misapprehended or overlooked by the Board in rendering its decision, as set forth below in detail.

REMARKS

Appellants respectfully submit that (i) the Board has erred in that the precise holding of *In re Aller* has been misconstrued, and (ii) that the cited prior art does not recognize the concentration of ethanol as a result-effective variable that can be “routinely optimized.”

The Board’s Reliance on *In re Aller*

The process set forth in the prior art relied upon by the Examiner, the Board, and ultimately the U.S. Court of Customs and Patent Appeals in *Aller*, was directed to a reaction which took place in a reflux condenser. (See, *In re Aller*, 220 F.2d 454 (C.C.P.A. 1955)). More specifically, the prior art process in *Aller* involved the use of a “reflux condenser (temperature in the tube 100 degrees, in the condenser 60 degrees).” (See, *In re Aller* at 455). A reaction taking place in such a tube reactor, or column, will necessarily be occurring over a range of temperatures of from 100° to some lower number approaching 60°. In fact, in discussing the invention in *Aller*, the court specifically mentions that the appellants in that case had not shown anything critical about their claimed range of 40 to 80° versus temperatures “between 80 degrees and 100 degrees C.” (See, *id.* at 457 (emphasis added)).

It is clear, as recognized by the court in *Aller*, that the prior art considered in that case disclosed a range of temperatures overlapping, or at least touching, the range claimed by appellants in that case (*i.e.*, from 40 to 80° C). Contrary to the Board’s position taken in the instant appeal, *In re Aller* does NOT stand for the proposition that a particular temperature or concentration value outside of a claimed range supports a conclusion of obviousness.

Appellants again respectfully submit that obviousness arguments based upon “routine optimization” rationales are applicable only where the claimed subject matter is *encompassed* by the prior art. Encompassing teachings may not require an explicit reference to a broader or overlapping range than that which is claimed, but as set forth by the court in *In re Aller*, the “general conditions” must be disclosed. (See, *In re Aller* at 456). For example, if a single example of 100°C were provided for a reaction temperature, and the specification provided more general guidance indicating that any temperature above room temperature was suitable, then clearly a claimed range of 40 to 80° C would likely be obvious, as would a range

of from 200 to 300° C. The holding of the court in *In re Aller* was not based upon such a situation. As set forth above, *In re Aller* involved a situation of overlapping ranges. Where “encompassing” general conditions are not disclosed, and only specific examples outside of a claimed range are provided, such a claimed range cannot be held to be *prima facie* obvious.

Additionally, Appellants respectfully submit that the Board’s reliance on certain statements in the Keil reference as providing disclosure of such “general conditions” is misplaced. The Board has referred to a portion of the Keil reference which states that, “[t]he composition according to the invention is preferably prepared in aqueous or in aqueous-alcoholic media, however it is also possible to provide it as a water-free preparation.” (*See*, Keil, col. 4, lns. 4-6). However, the only non-aqueous formulations disclosed by Keil are waxes, gels and the like. (*See, id.* at lines 34-35). The only exemplified “water-free” compositions in Keil are a gel and a wax, each of which contains neither water, nor ethanol. (*See, id.*, Examples 6 and 8). In other words, the only “water-free” compositions are also ethanol free, in contrast to the replacement of the water with the alcohol. Accordingly, Appellants submit that Keil does not disclose general conditions teaching ethanol concentrations which “encompass” Appellants’ claimed range.

Result-Effective Variables

The Honorable Board has stated that “Keil discusses several options for alcohol concentration including alcohol-free preparations, alcohol mixtures and water-free preparations.” (*See*, the Board’s Decision, p. 5). Additionally, the Board states that “Keil exemplifies preparations with different concentrations of ethanol.” (*See, id.*). Finally, the Board argues that “[o]ne of ordinary skill in the art would have understood, from the various disclosures in Keil, that the concentration of ethanol is a result effective variable.” (*See, id.*). Appellants respectfully disagree and submit that the Board has failed to provide an appropriate citation to any portion of Keil which *recognizes an effect of this variable*.

As discussed above, the only water-free preparations are also ethanol free. The only other general teachings as to ethanol concentration are generic references to aqueous solutions and aqueous-alcoholic solutions. Beyond this, the teachings of Keil are limited to

specific examples of formulations containing ethanol in concentrations, none of which is within Appellants' claimed range.

There is nothing in Keil which suggests maximizing ethanol concentration. Furthermore, there is nothing in Keil which would suggest that the exemplary formulation containing 50% ethanol performs any better than the formulation containing 40% ethanol. The courts have long recognized that an "obvious to try" rationale does not support a conclusion of obviousness, and the Court of Customs and Patent Appeals has specifically held that "argu[ing] that it would always be obvious for one of ordinary skill in the art to try varying every parameter of a system in order to optimize the effectiveness of the system even if there is no evidence in the record that the prior art recognized that particular parameter affected the result" is improper. (*See, In re Antonie*, 559 F.2d 618, 620 (C.C.P.A. 1977)). In *Antonie*, the court concluded that the prior art must recognize a functionality between two factors in order to disclose that one variable has an effect on another property. (*See, id.* at 620). Nothing in Keil teaches that varying the concentration of ethanol will have an effect on anything else. Such a recognition is the essence of a "result-effective variable".

Three years after *Antonie*, the C.C.P.A. decided *In re Boesch*, wherein a result-effective variable was found to exist where a prior art reference specifically taught that the higher the average electron hole number of an alloy, the higher the chance for precipitation of embrittling phases. (*See, In re Boesch*, 617 F.2d 272, 276 (C.C.P.A. 1980)). This is the kind of direct correlation between two factors that must be recognized by the prior art to constitute a result-effective variable.

No such correlation has been identified in the cited prior art, and Appellants respectfully submit that no such correlation exists. Accordingly, Appellants submit that the concentration of ethanol in the teachings of Keil cannot be "routinely optimized" as it is not recognized as a result-effective variable.

CONCLUSION

Appellants respectfully request a rehearing by the Honorable Board, in light of the comments and arguments set forth above, and reconsideration and revision of the Board's Decision in this Appeal.

Respectfully submitted,

CLAUDIA PANZER, et al.

November 1, 2004
(Date)

By: _____

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